

REMARKS

Claims 1-13 were pending in the application. Claims 14-17 are newly added. Support for the newly added Claims is in the Applicants' specification as originally filed. (*See* Page 7, lines 2-20; Page 12, lines 25-27 and Page 14, lines 1-7.) Claims 1, 4-5, 8-9 and 12-13 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Rabenko et al. (U.S. Patent No. 6,765,931). Claims 2-3, 6-7 and 10-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rabenko and Ho et al. (U.S. Patent Application No. 2003/0133461) in view of "Official Notice". Of the Claims, Claims 1, 5, 9 and 13 are independent claims. Claims have been amended to clarify the Applicants' invention. The Applicants respectfully traverse the rejections.

Regarding Rejections under 35 U.S.C. § 102(e)

Claims 1, 4-5, 8-9 and 12-13 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Rabenko et al. (U.S. Patent No. 6,765,931).

As is well-known in the art of modem relays, in order to maintain a modem connection that is, keep the modem connection alive, modem data must be continuously transmitted between the modems regardless of the amount of actual user data traffic being generated. This results in idle data being transmitted over an IP network which consumes IP network bandwidth.

The Applicants' invention is directed to a method for reducing Internet bandwidth for a modem relay by not forwarding data packets that would have a payload of idle data over the IP packet network between Internet nodes while maintaining the connection between the modems. A first modem is coupled to one Internet node and a second modem is coupled to another Internet node. Upon detecting no data packets received from the other Internet node to transmit to the first modem, the Internet node regenerates the idle data that would have been received in the payload of the non-received data packets to transmit to the first modem. The regenerated idle data is used to maintain the connection between the first modem and the second modem. Upon detecting idle data received from the first modem to forward to the other Internet node, the Internet node drops the detected idle data, that is, data packets that would have a payload of "idle data" are not transmitted over the packet network.

Cited prior art Rabenko discusses data relay mode in which all data signals between a call modem and an answer modem are transmitted over the packet based network. The system discussed by Rabenko includes a demodulation system and a remodulation system. The demodulation system includes a data pump receiver that demodulates signals received from the call modem and a packetization engine that packetizes the demodulated data signals to be transmitted over the packet based network. The remodulation system includes a depacketizing engine that depacketizes packets of data signals received over the packet based network and data pump transmitter that modulates the data signals (*See Col. 99, line 40 - Col. 100, line 55.*)

Rabenko does not teach or suggest at least the Applicants' claimed "upon detecting idle data received from the first modem over a GSTN network to forward to the other Internet node over the IP network in the payload of a data packet, dropping the detected idle data by not transmitting the data packet" as claimed by the Applicants in amended claim 1. In contrast to the Applicants' disclosed invention, Rabenko merely discusses a data relay mode in which a local modem connection is established on each end of the packet network and data signals originating in a call modem are relayed across the packet network to an answer modem. There is no teaching or suggestion of reducing the packet network bandwidth used in data relay mode or even identifying the type of data transferred across the packet based network. Thus, Rabenko merely discusses data relay mode in which all data signals are relayed across the packet based network. (*See Col. 99, lines 52-67.*)

Regarding Rejections under 35 U.S.C. 103(a)

Claims 2-3, 6-7 and 10-11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Rabenko and Ho et al. (U.S. Patent Application No. 2003/0133461) in view of "Official Notice".

The Examiner has taken Official Notice that allocating idle data to memory is well known. The Applicants respectfully traverse the Examiner's assertion of Official Notice. The Applicants' disclosed invention is not directed to allocating idle data to memory. Instead, the Applicants' method implemented in an Internet Node reduces Internet bandwidth used for VoIP modem relay by dropping detected idle data by not forwarding the data packet over the IP

network. The idle data may be assigned a value of ‘FF’ or ‘7E’ as claimed in claims 2-3, 6-7, and 10-11.

Cited prior art, Ho is directed to data transfer over an IP network. Instead of storing the received idle data in the payload of the data packet, a circuit header in each IP packet includes an idle flag that is set in the packet to indicate idle data was received. Thus, the receiver receives a packet that includes an indication of the idle data instead of the actual idle data.

To establish a *prima facie* case for obviousness under 35 U.S.C. § 103(a), (1) there must be some suggestion or motivation to combine reference teachings. (2) There must be a reasonable expectation of success. (3) The references when combined must teach or suggest all the claim limitations. For the reasons discussed below, it is respectfully submitted that the Office has not established a *prima facie* case under 35 U.S.C. § 103(a) for Claims 2-3, 6-7 and 10-11, and that therefore, Claims 2-3, 6-7 and 10-11 are allowable.

Ho merely discusses transmitting an indication of idle data in a packet instead of transmitting the idle data in the payload of a packet. Ho does not even suggest a modem relay. Ho only discusses transmitting packets over an IP network over which the transmission of an indication of idle data instead of the actual idle data is sufficient for the purposes of the Ho system. However, a modem relay connection cannot be maintained if the idle data that is used to maintain the modem connection is not received by each modem.

Rabenko is directed to a modem relay and Ho is directed to emulation of constant bit rate over an IP network. One skilled in the art of modem relay would not look to emulation of constant bit rate over an IP network in order to reduce bandwidth over the packet network in a modem relay. Even if the references were combined, the combination does not teach or suggest at least the Applicants’ claimed “dropping the detected idle data by not forwarding the data packet over the IP network” as claimed by the Applicants in amended Claim 1. The combination merely describes a modem relay including a packet network over which data packets are transmitted with an indication of idle data instead of the idle data.

The above quoted claim language is in amended base Claim 1. Claims 2-4 and 14-17 are dependent on Claim 1 and thus include this limitation over the cited art. Independent Claims 5 and 9 as amended recite a like distinction in terms of an apparatus and thus similarly patentably distinguish over the prior art. Claims 6-8 are dependent on Claim 5 and Claims 10-12 are

dependent on Claim 9 and thus include this limitation over the prior art. Independent Claim 13, as amended recites a like distinction in terms of a computer program product and thus similarly patentably distinguish over the prior art.

Accordingly, the present invention as now claimed is believed to be patentably non-obvious over the cited art. In view of the foregoing, removal of the rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) and acceptance of Claims 1-17 are respectfully requested.

**CONCLUSION**

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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Dated: 3/10/05